

# SLO Performance - By Department, Course, CSLO

Program: Mathematics

Date: 06/18/2018

Terms: Summer 2018, Spring 2018, Fall 2017

## MATHB1A: Precalculus I

**Upon completion the student will be able to: Defining and developing the concept of "function", including domain range, graph, inverse, and algebra of functions (addition, subtraction, multiplication, division, composition).**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Techniques of graphing polynomials, rational, exponential, and logarithmic functions, using intercepts, asymptotes, multiplicity, symmetry, translations, and reflections.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Solve exponential and logarithmic equations and their applications.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	54	19.08%	31	10.95%	118	41.70%	80	28.27%	283	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	54	19.08%	31	10.95%	118	41.70%	80	28.27%	283	100.00%

**Upon completion the student will be able to: Solve a system of non – linear equations and inequalities, by graphing and algebraic methods.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Apply the Fundamental Theorem of Algebra and its consequences. Determine the possibilities for rational roots of polynomial equation, and obtain information about the number of positive, negative, complex roots.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Solve systems of linear equations and partial fraction decomposition.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	54	19.08%	31	10.95%	118	41.70%	80	28.27%	283	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>54</b>	<b>19.08%</b>	<b>31</b>	<b>10.95%</b>	<b>118</b>	<b>41.70%</b>	<b>80</b>	<b>28.27%</b>	<b>283</b>	<b>100.00%</b>

<b>MATHB1A: Precalculus I</b>										
<p><b>1. Upon successful completion of the course, the student will translate and solve application problems including exponential, linear, quadratic and optimization problems. Be able to interpret solutions.</b></p> <p style="margin-left: 40px;">CSLO not included in any Assessment Rubric</p>										
<p><b>2. Upon successful completion of the course, the student will classify various functions, and apply an appropriate algorithm to find solutions, both algebraically and by using the graph of the function.</b></p> <p style="margin-left: 40px;">CSLO not included in any Assessment Rubric</p>										
<p><b>3. Upon successful completion of the course, the student will describe the behavior of various functions. Formulate conjectures on the nature of the roots of polynomials.</b></p> <p style="margin-left: 40px;">CSLO not included in any Assessment Rubric</p>										
<b>Totals for CSLOs</b>										
	<b>N/A</b>		<b>Exceeds expectations</b>		<b>Meets expectations</b>		<b>Does not meet expectations</b>		<b>Total</b>	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

<b>MATHB1B: Precalculus II</b>										
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**1. Upon completion of the course, the student will translate applications of distance, angle and wave behaviors by identifying and applying appropriate trigonometric formulas, and then solve and interpret solutions.**

CSLO not included in any Assessment Rubric

**2. Upon completion of the course, the student will classify trigonometric functions. Apply appropriate identities and formulas to evaluate, simplify and solve equations.**

CSLO not included in any Assessment Rubric

**3. Upon completion of the course, the student will demonstrate mathematical knowledge by clearly communicating concepts in written, verbal and graphing forms, including proofs.**

CSLO not included in any Assessment Rubric

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**MATHB1B: Precalculus II**

**Upon completion the student will be able to: Convert angles from degree measure to radian measure and radians to degrees. Classify an angle in standard position by quadrant and, knowing a coordinate pair on the terminal side, use ratios to find all six trigonometric functions of any angle.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: The student will become proficient in the technique of proof by mathematical induction.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: The student will become proficient in solving problems related to arithmetic and geometric sequences and series. And use the binomial theorem.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Solve right triangle applications and determine exact results or rounded answers, as is appropriate. Solve application problems by using Law of Sines, Law of Cosines, or area formulas.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Graph any of the six trigonometric functions, applying any change to the period, phase shift, amplitude or vertical shift.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	0.69%	19	13.10%	81	55.86%	44	30.34%	145	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>1</b>	<b>0.69%</b>	<b>19</b>	<b>13.10%</b>	<b>81</b>	<b>55.86%</b>	<b>44</b>	<b>30.34%</b>	<b>145</b>	<b>100.00%</b>

**Upon completion the student will be able to: Verify trigonometric identities by using reciprocal or Pythagorean identities.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Apply the appropriate trigonometric formula (half-angle formulas, double-angle formulas, addition formulas) in order to evaluate trigonometric expressions and compute trigonometric function values.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Evaluate inverse trigonometric functions (exact and approximate) and solve equations containing inverse trigonometric functions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Find all solutions to trigonometric equations by choosing to isolate the trigonometric function, or use techniques of solving quadratic equations (factoring, square root property, quadratic formula).**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Use the knowledge of trigonometry to work with 2-dimensional vectors. Find magnitude and angle of inclination.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Write in standard form and graph conic sections.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	0.69%	19	13.10%	81	55.86%	44	30.34%	145	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>1</b>	<b>0.69%</b>	<b>19</b>	<b>13.10%</b>	<b>81</b>	<b>55.86%</b>	<b>44</b>	<b>30.34%</b>	<b>145</b>	<b>100.00%</b>

**MATHB2: Basic Functions and Calculus for Business**



**Upon completion the student will be able to: Translate application problems such as revenue, profit and cost, and then solve using calculus.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	4.35%	6	26.09%	11	47.83%	5	21.74%	23	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	4.35%	6	26.09%	11	47.83%	5	21.74%	23	100.00%

**Apply appropriate algorithms to evaluate limits, derivatives, and integrals to formulate solutions to business applications.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Demonstrate the concepts of business calculus by communicating in written, verbal and graphical form.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	4.35%	6	26.09%	11	47.83%	5	21.74%	23	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	4.35%	6	26.09%	11	47.83%	5	21.74%	23	100.00%

**MATHB21: Special Projects in Mathematics**

Upon completion the student will be able to: The student will demonstrate their knowledge of mathematics and its application in various settings.

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	14.29%	0	0.00%	6	85.71%	0	0.00%	7	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	14.29%	0	0.00%	6	85.71%	0	0.00%	7	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	14.29%	0	0.00%	6	85.71%	0	0.00%	7	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	14.29%	0	0.00%	6	85.71%	0	0.00%	7	100.00%

**MATHB22: Elementary Probability and Statistics**

Upon completion the student will be able to: Translate application problems by using inferential data analysis techniques. Analyze and interpret solutions.

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	17	58.62%	12	41.38%	29	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	17	58.62%	12	41.38%	29	100.00%

**Upon completion the student will be able to: Apply appropriate techniques of probability and probability distributions to solve problems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Demonstrate statistical knowledge of descriptive statistics by clearly communicating concepts in written or verbal form.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	63	8.36%	80	10.61%	388	51.46%	223	29.58%	754	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>63</b>	<b>8.36%</b>	<b>80</b>	<b>10.61%</b>	<b>388</b>	<b>51.46%</b>	<b>223</b>	<b>29.58%</b>	<b>754</b>	<b>100.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	63	8.05%	80	10.22%	405	51.72%	235	30.01%	783	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>63</b>	<b>8.05%</b>	<b>80</b>	<b>10.22%</b>	<b>405</b>	<b>51.72%</b>	<b>235</b>	<b>30.01%</b>	<b>783</b>	<b>100.00%</b>

**MATHB23: Finite Mathematics**

**Upon completion the student will be able to: Translate application problems related to linear programming, finance, business and economics. Solve and interpret solutions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	36	62.07%	22	37.93%	58	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>36</b>	<b>62.07%</b>	<b>22</b>	<b>37.93%</b>	<b>58</b>	<b>100.00%</b>

**Upon completion the student will be able to: Distinguish and apply appropriate formulas to solve problems involving in finance, combinatorics, and sets.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	2	5.41%	0	0.00%	24	64.86%	11	29.73%	37	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>2</b>	<b>5.41%</b>	<b>0</b>	<b>0.00%</b>	<b>24</b>	<b>64.86%</b>	<b>11</b>	<b>29.73%</b>	<b>37</b>	<b>100.00%</b>

**Upon completion the student will be able to: Distinguish between approaches related to linear programming, finance, and combinatorics in written or verbal form.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	6	17.65%	3	8.82%	25	73.53%	34	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>6</b>	<b>17.65%</b>	<b>3</b>	<b>8.82%</b>	<b>25</b>	<b>73.53%</b>	<b>34</b>	<b>100.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	2	1.55%	6	4.65%	63	48.84%	58	44.96%	129	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	2	1.55%	6	4.65%	63	48.84%	58	44.96%	129	100.00%

**MATHB4A: Mathematics for Elementary School Teaching**

Upon completion the student will be able to: Use multiple problem-solving strategies and approaches to solve real-world application problems, and to develop problems for all contexts of basic number operations using whole numbers, integers, rational numbers, sets, functions, and logic.

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Identify patterns and relationships between operations involving whole numbers, integers, and rational numbers, and to develop the real number system to introduce algebraic concepts within the real number system.

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Develop mathematical vocabulary for use in the mathematics elementary school classroom.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	23	67.65%	5	14.71%	6	17.65%	34	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>23</b>	<b>67.65%</b>	<b>5</b>	<b>14.71%</b>	<b>6</b>	<b>17.65%</b>	<b>34</b>	<b>100.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	23	67.65%	5	14.71%	6	17.65%	34	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>23</b>	<b>67.65%</b>	<b>5</b>	<b>14.71%</b>	<b>6</b>	<b>17.65%</b>	<b>34</b>	<b>100.00%</b>

**MATHB50: Modern College Arithmetic and Pre-Algebra**

**Upon completion the student will be able to: Demonstrate the ability to add, subtract, multiply, and divide whole numbers, integers, fractions, mixed numbers, and decimals.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Solve Linear Equations by: a) Using the Addition/Subtraction property of equality, b) Using the Multiplication/Division property of equality.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Translate English sentences to algebraic equations.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Simplify mathematical statements using the correct order of operations.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Calculate the perimeter and area of rectangles and triangles. Calculate the area and circumference of a circle.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Find equivalent forms of numbers (i.e. change fractions to decimals, change percents to fractions, change fractions to percents, change decimals to fractions, change decimals to percents, change percents to decimals, change mixed numbers to improper fractions, change improper fractions to mixed numbers).**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Round whole numbers and decimals appropriately as directed.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>



**Upon completion the student will be able to: Apply the concept of percent to real-world applications such as sales tax, discount, and simple interest.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Make conversions in the US Customary System of measurements, as well as in the Metric System.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**MATHB60: Beginning Algebra**

**Upon completion the student will be able to: Translate application problems, such as distance, percent, and geometry by formatting an appropriate equation or inequality. Solve and interpret solutions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	56	91.80%	5	8.20%	61	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	56	91.80%	5	8.20%	61	100.00%

**Upon completion the student will be able to: Classify linear, rational, and quadratic functions, and apply appropriate algorithms, including factoring, graphing, and symbolic representations to find solutions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Demonstrate mathematical knowledge by clearly communicating linear, exponent, and rational concepts in written or verbal form.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	54	9.87%	12	2.19%	287	52.47%	194	35.47%	547	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	54	9.87%	12	2.19%	287	52.47%	194	35.47%	547	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	54	8.88%	12	1.97%	343	56.41%	199	32.73%	608	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	54	8.88%	12	1.97%	343	56.41%	199	32.73%	608	100.00%

**MATHB65: Intermediate Algebra for Statistics**

**Upon completion the student will be able to: Translate application problems such as distance, percent, geometry, motion, mixture, and work by formatting an appropriate equation or inequality. Solve and interpret solutions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	22	17.05%	16	12.40%	48	37.21%	43	33.33%	129	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	22	17.05%	16	12.40%	48	37.21%	43	33.33%	129	100.00%

**Upon completion the student will be able to: Classify linear, rational, exponential and logarithmic functions, and apply appropriate algorithms, including factoring, graphing, and symbolic representations to find solutions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Demonstrate mathematical knowledge by clearly communicating linear, exponent, rational, and exponential and logarithmic concepts in written or verbal form.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	32	9.07%	29	8.22%	147	41.64%	145	41.08%	353	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	32	9.07%	29	8.22%	147	41.64%	145	41.08%	353	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	54	11.20%	45	9.34%	195	40.46%	188	39.00%	482	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	54	11.20%	45	9.34%	195	40.46%	188	39.00%	482	100.00%

**MATHB6A: Analytic Geometry/Calculus I**

**Upon completion student will be able to: Translate application problems, such as related rates, optimization, and velocity-displacement. Solve and interpret solutions using calculus.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Apply appropriate algorithms to evaluate limits, derivatives, and integrals to formulate solutions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Demonstrate the concepts of calculus by communicating in written, verbal and graphical form.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	13	12.62%	28	27.18%	33	32.04%	29	28.16%	103	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	13	12.62%	28	27.18%	33	32.04%	29	28.16%	103	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	13	12.62%	28	27.18%	33	32.04%	29	28.16%	103	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	13	12.62%	28	27.18%	33	32.04%	29	28.16%	103	100.00%

**MATHB6B: Analytic Geometry/Calculus II**

**Upon completion the student will be able to: Calculate derivatives of exponential and logarithmic functions, inverse trigonometric functions, hyperbolic functions, and inverse hyperbolic functions. Identify when to use logarithmic differentiation. Solve problems involving exponential and logarithm functions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Calculus of parametric equations. Be able to parameterize an equation. Be able to graph, differentiate, and integrate parametric equations.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Integrate exponential and logarithmic functions, and hyperbolic functions. Identify integrands that are derivatives of inverse trigonometric functions or inverse hyperbolic functions. Determine when to use u-substitution or complete the square.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	2	5.13%	25	64.10%	6	15.38%	6	15.38%	39	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	2	5.13%	25	64.10%	6	15.38%	6	15.38%	39	100.00%

**Determine an appropriate method of integration and apply that method. Choose partial fractions (may first require long division), integration by parts, trigonometric substitution (use a triangle or an identity) or a combination of methods. Use numerical methods such as the trapezoidal rule or Simpson's Rule to evaluate a definite integral.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	3	3.70%	2	2.47%	40	49.38%	36	44.44%	81	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>3</b>	<b>3.70%</b>	<b>2</b>	<b>2.47%</b>	<b>40</b>	<b>49.38%</b>	<b>36</b>	<b>44.44%</b>	<b>81</b>	<b>100.00%</b>

**Evaluate improper integrals, as well as use L'Hopital's Rule to evaluate limits of indeterminate form and ranking of functions according to their growth rates.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Know properties of sequences. Recognize monotonic sequences and know when they converge. Test whether a sequence converges or diverges by using a limit or the Sandwich Theorem.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Be familiar with geometric series, telescoping series, and p-series. Test whether a series converges (absolutely or conditionally) or diverges. Be able to apply the nth-term test for divergence, the integral test, the direct comparison test, the limit comparison test, the ratio test, and the nth-root test. Determine radius and interval of convergence.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Additional applications such as work, volumes, arc length, area of a surface of revolution, moments and centers of mass, separable differential equations, growth and decay.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Build the Taylor series, Taylor polynomial of order n, or Maclaurin series of a function. Know the form of the binomial series. Estimate the error in truncating a series. Differentiate and integrate power series.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>



**Translate rectangular coordinates to polar coordinates and polar to rectangular. Graph, calculate slope, area, or shared area of polar curves.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	5	4.17%	27	22.50%	46	38.33%	42	35.00%	120	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>5</b>	<b>4.17%</b>	<b>27</b>	<b>22.50%</b>	<b>46</b>	<b>38.33%</b>	<b>42</b>	<b>35.00%</b>	<b>120</b>	<b>100.00%</b>

**MATHB6C: Calculus III**

**Upon completion the student will be able to: Perform vector operations;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Apply Greens Stokes', and divergence theorems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Determine equations of lines and planes;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Find the limit of a function at a point;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	11	27.50%	11	27.50%	11	27.50%	7	17.50%	40	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>11</b>	<b>27.50%</b>	<b>11</b>	<b>27.50%</b>	<b>11</b>	<b>27.50%</b>	<b>7</b>	<b>17.50%</b>	<b>40</b>	<b>100.00%</b>

**Evaluate derivatives and write the equation of a tangent plane at a point;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Determine differentiability;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Find local extrema and test for saddle points;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Solve constraint problems using Lagrange multipliers;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Compute arc length and find the divergence and curl of a vector field;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Evaluate two and three dimensional integrals;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	11	27.50%	11	27.50%	11	27.50%	7	17.50%	40	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>11</b>	<b>27.50%</b>	<b>11</b>	<b>27.50%</b>	<b>11</b>	<b>27.50%</b>	<b>7</b>	<b>17.50%</b>	<b>40</b>	<b>100.00%</b>

**MATHB6D: Ordinary Differential Equations**

Upon completion the student will be able to: Explain the criteria for the existence of a unique solution to an initial value problem.

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Find critical points and phase portrait for autonomous differential equations. The student will also sketch solution curves based on that information.

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Solve first order differential equations by separable variables, integration factors, exact equations, and substitutions. In addition, be able to find power series solutions to ordinary differential equations and apply the existence and uniqueness theorems for ordinary differential equations.

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	27	77.14%	8	22.86%	35	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	27	77.14%	8	22.86%	35	100.00%

**Set up differential equations to model growth and decay, Newton's Law of Warming/Cooling, mixture problems, population dynamics, and predator/prey.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Solve homogenous and non-homogenous differential equations by methods that include method of undetermined coefficients, variation of parameters, Cauchy-Euler equations, and substitutions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Solve system of linear differential equations by elimination and/or eigenvalues.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**LaPlace transforms to solve initial value problems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Use numerical methods to solve initial value problems. Methods could include Euler’s method, Taylor series solution, and the Runge-Kutta method**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	27	77.14%	8	22.86%	35	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>27</b>	<b>77.14%</b>	<b>8</b>	<b>22.86%</b>	<b>35</b>	<b>100.00%</b>

**MATHB6E: Elementary Linear Algebra**

**Upon completion the student will be able to: Find solutions of systems of equations using various methods appropriate to lower division linear algebra;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Use bases and orthonormal bases to solve problems in linear algebra;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>

**Upon completion the student will be able to: Find the dimension of spaces such as those associated with matrices and linear transformations;**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	3.12%	0	0.00%	29	90.62%	2	6.25%	32	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>1</b>	<b>3.12%</b>	<b>0</b>	<b>0.00%</b>	<b>29</b>	<b>90.62%</b>	<b>2</b>	<b>6.25%</b>	<b>32</b>	<b>100.00%</b>



**Upon completion the student will be able to: Find eigenvalues and eigenvectors and use them in applications; and**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Prove basic results in linear algebra using appropriate proof-writing techniques such as linear independence of vectors; properties of subspaces; linearity, injectivity and surjectivity of functions; and properties of eigenvectors and eigenvalues.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	1	3.12%	0	0.00%	29	90.62%	2	6.25%	32	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	3.12%	0	0.00%	29	90.62%	2	6.25%	32	100.00%

**MATHB70: Intermediate Algebra**

**Upon completion the student will be able to: Translate application problems involving motion, mixture and work by formulating appropriate equations, systems of equations or inequalities. Solve and interpret results.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Upon completion the student will be able to: Classify linear and non-linear functions, including conic and logarithmic. Apply appropriate algorithms, including factoring, graphing, and symbolic representations to find solutions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	11	28.21%	0	0.00%	22	56.41%	6	15.38%	39	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	11	28.21%	0	0.00%	22	56.41%	6	15.38%	39	100.00%

**Upon completion the student will be able to: Demonstrate mathematical knowledge by clearly communicating linear and non-linear concepts including radicals, exponential and logarithmic concepts in written or verbal form.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	78	11.40%	116	16.96%	304	44.44%	186	27.19%	684	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	78	11.40%	116	16.96%	304	44.44%	186	27.19%	684	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	89	12.31%	116	16.04%	326	45.09%	192	26.56%	723	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>89</b>	<b>12.31%</b>	<b>116</b>	<b>16.04%</b>	<b>326</b>	<b>45.09%</b>	<b>192</b>	<b>26.56%</b>	<b>723</b>	<b>100.00%</b>

**Report Totals:**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Summer 2018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Spring 2018	349	9.84%	404	11.39%	1699	47.90%	1095	30.87%	3547	100.00%
Fall 2017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>349</b>	<b>9.84%</b>	<b>404</b>	<b>11.39%</b>	<b>1699</b>	<b>47.90%</b>	<b>1095</b>	<b>30.87%</b>	<b>3547</b>	<b>100.00%</b>